AMENDMENTS TO THE CLAIMS:
This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:
Amendments shown by strikethrough (for deleted matter) or underlining (for added matter).

What is claimed is

1.   (Previously presented) A digital camera with depth of field-improving properties, provided with an objective for reproducing a scene composed of objects within a field of view at different object distances in front of said lens, a focus-selector for preselection of states of focus and a focusing device for focusing the camera at different ranges, at least one electronic image detector having entrance plane for detection and recording of image information corresponding to images of said scene and an associated image-sharpness detector located inside the camera or somewhere else, wherein

a) said image detection being arranged in such a way that image information, corresponding to at least two differently-focused images, i.e. with a relative difference in state of focus and depicting the same scene, is being registered,

b) the focusing device being arranged for simultaneous, or in successive time-sequential automatic order, focusing of the camera at respective preselected object-distances, and this being synchronized to said ongoing image-detection,

c) means being arranged for having said image-sharpness detector, directly or indirectly from each set of said corresponding differently-focused images select, extract and forward such parts/portions of the image information, contributing to the most optimal image resolution and merge said select image information from corresponding images into a final image having better image resolution than each individually focused image record by itself, and this resultant image being registered in a terminal memory and/or being presented on a permanent medium and

d)the camera being provided with at least one viewfinder.

2.   (Previously presented) A digital camera with lens for depicting a scene being composed of objects within a field of view, at various ranges in front of the same objective and a focusing device for focusing the camera at different distances, at least one electronic image

detector with entrance plane for detection and register of image information corresponding to an image of the scene being depicted, an image-sharpness detector and at least one camera viewfinder, wherein

a) the said focusing device being arranged for focusing this instrument simultaneously, and/or in time-sequence, at different object-distances,

b) the image detection being arranged in such a way that at least two differently-focused images, i.e. with mutually different states of focus and depicting the same scene, are being detected,

c) means having been allocated for letting said image-sharpness detector, directly or indirectly and from each such set of corresponding differently-focused images, select/extract and forward such components/parts of the image information, which contribute to the most optimal picture definition and let this said select image information from sets of mutually corresponding pictures merge into a final image with better resolution than the differently-focused images detected individually, and

d) means being allotted for visualizing an electronic image in the viewfinder, being generated from at least one of said differently-focused images..

3. (Previously presented) A camera of claim 1 or 2 wherein means are arranged for visualizing an electronic image in the viewfinder, constituting a superposition of at least two of said differently-focused images into one common average-image which has a more extended depth of field than each of the differently-focused images individually, and said average-image being forwarded to the electronic viewfinder for image-presentation.

4 (Previously presented) A camera of claims, wherein means are arranged for visualizing an electronic viewfinder-image, generated by at least one registration at shorter objective focal-length, than for said image registration by the camera.

5. (Previously presented) A digital camera with lens for depicting a scene being composed of objects within a field of view, at various ranges in front of the same objective and a focusing device for focusing the camera at different distances, at least one electronic image detector with entrance plane for detection and register of image information corresponding to an

image of the scene being depicted, an image-sharpness detector and at least one optical camera viewfinder, characterized by

a) the said focusing device being arranged for focusing this instrument simultaneously, and/or in time-sequence, at different object-distances,

b) the image detection being arranged in such a way that at least two differently-focused images, i.e. with mutually different states of focus and depicting the same scene, are being detected,

c) means having been allocated for letting said image-sharpness detector, directly or indirectly and from each such set of corresponding differently-focused images, select/extract and forward such components/parts of the image information, which contribute to the most optimal picture definition and let this said selected image information from the same set of mutually corresponding pictures merge into a final image with better resolution than the differently-focused images detected individually, and

d) the optical viewfinder being arranged for viewing without diffusive focusing screen, implying an improvement of viewfinder-depth of field, this being due to the intrinsic accommodation- and/or aperture reduction ability of a human pupil when performing ocular observation

6. (Previously presented) A camera of claim 5, which comprises an optical viewfinder with a focusing screen for projecting the scene onto a viewfinder image-plane, and that means have been arranged for transporting this screen out of the ray path.

7.. (Previously presented) A camera of claim 6 wherein means are arranged for reduction of a viewfinder aperture:

8. (Previously presented) A camera of claim 5, wherein means are set up for a viewfinder to superpose images, which have been differently focused by optical means, and this generating a joint, merged viewfinder-image with better depth of field-properties, than said individual images.

9-13 (Cancelled)

14. (Currently Amended) A camera of claim [9] 2 and with an image-selector, wherein means are arranged for optional presentation/display in a viewfinder of each individual, differently-focused image and that this choice is controllable with said image selector.

15. (Previously presented) A digital camera with lens for depicting a scene being composed of objects within a field of view, at various object-distances in front of said objective, a focus-selector and a focusing device for setting the focus of the camera at different distances, at least one electronic image detector with entrance plane for detection and register of image information answering to an image of the scene being depicted, plus an associated image-sharpness detector, wherein

a) said focusing device being arranged for simultaneous focusing of this instrument at different object-distances, and/or a time-sequential focusing procedure is being used,

b] an image detection being arranged in such a way that image information equivalent to at least two differently-focused images, i e with mutually different states of focus and depicting the same scene, are detected,

c) means being allocated for letting said image-sharpness detector, directly or indirectly and from each such set of corresponding differently-focused images, select/extract and forward such components/parts of the image information, which contribute to the most optimal picture definition and let this said selected image information from the same set of mutually corresponding pictures, merge into a final image with better resolution than the differently-focused images detected individually, and

d) means being arranged for selecting individual focus-distances, using said focus-selector, answering to at least one of said differently-focused images, this constituting an optional pre-selection of individual states of focus, before image registration takes place.

16.. (Previously presented) A camera of claim 15 in continuous mode, i. e. with capacity to perform a swift time-sequential succession of exposures and further means being allotted to control and drive said focusing device by using an electronic driver-module, wherein means are arranged for automatic setting of the camera focus at said pre-selected states of focus, while image detection, i.e. said exposures, are going on..

17. (Previously presented) A camera of claim15 and with additional motion-sensor, calibrated counter and electronic processor, wherein means are arranged for said driver-module to electrically drive the transport of such optical elements or image-sensors, being primarily responsible for refocus and that said calibrated counter is arranged for registration of current location of said focusing elements and that this information is interacting with the processor in a procedure of converging said motion towards a required state of focus.

18. (Cancelled)

19 (Previously presented) A camera of claim 15, furnished with a focus-registrar contrivance and at least one focus-memory, wherein means are arranged for registration of single states of focus as well as sets of such priority-states and furthermore forward such information to said memory for saving.

20.. (Previously presented) A camera of claim 19, furnished with a focus-retrieval contrivance, wherein means are provided for selecting and retrieving information from said focus-memory, this information constituting registered sets about focal states or parts thereof , i.e.. in-data for controlling said focusing device.

21.. (Previously presented) A camera of claim 19 and provided with a focus-indicator, wherein means are pre-arranged for visual indication of state of focus, being registered in said memory.

22. (Previously presented) A camera of claim 19 with a nullifier contrivance, wherein means are adopted for an electronic reset of said focus-memory, constituting an erasure of

said registered states of focus.

23. (Cancelled)

24. (Previously presented) A camera of claim 15 with an interval-selector contrivance, wherein means are arranged for selecting at least one operational object-distance interval, corresponding to the focusing interval within which image detection is arranged to take place.

25. (Previously presented) A camera of claim 15 , wherein means are arranged for automatic setting of said differently-focused images, following a programmed, pre-selected scheme for focus-distances, the preferable distribution of these being optimally even, from a depth of field-standpoint, and this constituting a set of standard focuses.

26.. (Previously presented) A camera of claim 15 and furnished with a proximity-selector contrivance, wherein means are allotted for setting the nearest focus-distance allowed during image-detection, and this being controllable with said proximity-selector, and said procedure constituting an optional pre-selection..

27 (Previously presented) A camera of claim 15, having optimal-focus-selector and depth of field-selector contrivances, wherein means are arranged for selecting and focusing within the field of view with said focus-selector, on at least one object or distance of preference, for optimal image resolution and to furthermore set the depth of field-selector for an object-distance interval of priority, within which depth of field-improvement is being arranged and this said interval being located in front of and/or behind said object/distance of preference.

28. (Previously presented) A camera of claim 24 and provided with an electronic image blur-function wherein means are arranged for defocusing image-parts outside said object-distance intervals by using said blur-function, or replace said image parts with some other picture.

29. (Previously presented) A camera of claim 15 and with more than one image-sensor,

wherein means are arranged for electrical connection in between sensors in order to accomplish a common read-out.

30. (Previously presented) A camera of claim 15, wherein said camera-objective comprises a permanently attached lens on the camera plus means being allotted for attachment of a detachable afocal add-on lens with fixed or variable magnification.

31. (Previously presented) A camera of claim 15, wherein an image-sensor of the camera having at least two mutually in parallel detector planes and that these surfaces are separated in order to register differently-focused images, one at each such plane.

32. (Previously presented) A camera of claim 15, wherein means are allocated for said selection extraction of image information by using said image-sharpness detector and by utilizing said template- or image-comparison technique, and where said image-registration for respective final image and template image are independent, separate recordings and at least one of the camera settings like exposure-time, aperture size, focal length and image sensor-sensitivity differ in between these two separate registrations.